Statewide Interoperability Policy and Planning Sub-Committee

November 10, 2009

Purpose

On Wednesday, October 21, 2009, the Policy and Planning Sub-Committee met to address the recommended policy drafts and amendments submitted. During this meeting, the following items were approved by the subcommittee. The following are being presented to the Statewide Interoperability Executive Committee for approval.

Louisiana SIEC

The Policy Drafts and Amendments reviewed by the Committee were:

- Policy 002 – System Access
- Policy 003 – Interoperable Channels
- Infrastructure Policy
- Network Patching Policy

Policy 002 – System Access

The following additional language to the existing policy has been requested by the Technical Subcommittee and approved by the Policy and Planning Subcommittee:

Consoles, CCGW, or any other infrastructure equipment or system that would affect LWIN System resources must be prior reviewed by the SIEC Technical Subcommittee which will make a recommendation to the Executive Committee. The Executive Committee will then make a determination.

Policy 003 – Interoperable Channels

Under 700/800 MHz Interoperability Talkgroups and Channels

Add a new Section B titled *Minimum Requirements*, which would state as follows and re-letter existing Sections B to C, C to D, etc. continuing to the end:

In order to accommodate subscriber units with a limited talkgroup capacity, the SIEC has identified the following talkgroups as a minimum requirement for all LWIN subscriber units with the capacity for less than 200 talkgroups per radio.

Louisiana SIEC

DESIGNATOR	USE
*INTEROP-1	LOCAL/STATE AGENCY INTEROPERABILITY
*INTEROP-2	LOCAL/STATE AGENCY INTEROPERABILITY
*INTEROP-3	LOCAL/STATE AGENCY INTEROPERABILITY
*INTEROP-4	LOCAL/STATE AGENCY INTEROPERABILITY
*INTEROP-5	LOCAL/STATE AGENCY INTEROPERABILITY
*INTEROP-6	LOCAL/STATE AGENCY INTEROPERABILITY
*INTEROP-7	LOCAL/STATE AGENCY INTEROPERABILITY
*INTEROP-8	LOCAL/STATE AGENCY INTEROPERABILITY
*INTEROP-9	LOCAL/STATE AGENCY INTEROPERABILITY
*R(region number)-COORDCALL	LOCAL/STATE AGENCY INTEROPERABILITY
*R(region number)-COORDTK-1	LOCAL/STATE AGENCY INTEROPERABILITY
*R(region number)-COORDTK-2	LOCAL/STATE AGENCY INTEROPERABILITY
*(PARISH)-1	LOCAL/STATE AGENCY INTEROPERABILITY
*(PARISH)-2	LOCAL/STATE AGENCY INTEROPERABILITY
*(PARISH)-3	LOCAL/STATE AGENCY INTEROPERABILITY
*(PARISH)-4	LOCAL/STATE AGENCY INTEROPERABILITY

The ten mutual aid conventional channels detailed in section F of this policy must be programmed in every mobile and portable radio.

Infrastructure Policy

The following is a new proposed policy that has been approved by the Policy and Planning Subcommittee:

I. Purpose

The purpose of this policy is to provide a mechanism to integrate locally procured communications infrastructure into the Louisiana Wireless Information Network (LWIN) in order to improve the coverage area and in-building penetration of the LWIN beyond the Statewide Interoperability Executive Committee's (SIEC) 95% or better coverage goal as stated in POLICY NUMBER: 001, Statewide System Requirements Policy:

> "The Statewide P25 System will provide 95% or better coverage when using a portable radio inside a building within the metropolitan areas of the state as identified in the Statewide Communications Interoperable Plan and 95% or better coverage when using a portable street level radio in all other areas of the state."

The SIEC reaffirms our commitment to this standard. This commitment is undertaken with the understanding that any System User Agencies Infrastructure Improvement Request does not address any of the pre-determined sites that are projected to provide the above stated coverage.

The processes outlined in this document will provide guidance for integrating locally provided equipment into the LWIN system.

Infrastructure Policy

II. Process

System User Agencies will follow the steps below to integrate planned or existing infrastructure into the LWIN:

The Statewide Interoperability Executive Committee (SIEC) requires all System User Agencies to submit their Infrastructure Improvement Request (Appendix A-Sample Only) to their respective Regional Interoperability Committee (RIC) for a letter of endorsement. In the absence of a RIC, the letter may be sent directly to the SIEC Chairman.

System User Agencies will also furnish a copy to the SIEC Chairman.

When applicable, the respective RIC will review the request and forward a copy with either a letter of endorsement or letter of non-endorsement outlining the reason of their position to the SIEC Chairman.

Contact Information for SIEC:

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Infrastructure Policy

II. Process (continued)

SIEC Chairman will direct the SIEC Technical Sub-Committee to complete a feasibility study to determine viability of the proposed Infrastructure Improvement Request.

SIEC Technical Sub-Committee will present findings to the SIEC or Executive Committee with a recommended course of action.

Upon approval of the Infrastructure Improvement Request, the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) Office of Interoperability will coordinate the development of all Intergovernmental Agreements (IAs), Memorandums of Understanding (MOUs), and other documents to facilitate the Installation, Operation, and Maintenance (IOM) of all equipment, operating procedures, and means of use.

III. Roles and Responsibilities

System User Agencies

- Submit Infrastructure Improvement Request to their respective RIC with a copy furnished to SIEC Chairman
- Assist in the feasibility study by providing Subject-Matter Experts (SMEs), projected infrastructure equipment, and any possible frequency allocation
- Supply any available frequencies for re-use at proposed site

Infrastructure Policy

III. Roles and Responsibilities (continued)

Regional Interoperability Committee

- Review System User Agency Infrastructure Improvement Request
- Forward Infrastructure Improvement Request to SIEC Chairman with a letter of endorsement/non-endorsement
- Include a list of reasons for their position in the RIC letter

SIEC Chairman

- Confirm receipt to the System User Agency of their Infrastructure Improvement Request
- Present Infrastructure Improvement Request to SIEC or Executive Committee with the Technical Sub-Committee recommendation and any technical analysis regarding capacity requirements for the affected area
- Notify the requesting System User Agency if request was approved / denied
- Provide a letter of explanation to the System User Agency in the event a request is denied.

SIEC Technical Sub-Committee

- Review the System User Agency Infrastructure Improvement Request
- Will conduct an analysis in conjunction with the System User Agency that includes but not limited to cost/benefits analysis, capacity requirements, which zone new infrastructure should be integrated into, or any other technical analysis of the proposed Infrastructure Improvement Request
- Make a recommendation on proposed Infrastructure Improvement Request to the SIEC Chairman

Infrastructure Policy

III. Roles and Responsibilities (continued)

Department of Public Safety (DPS)

•Will ensure frequency allocation per FCC approved Region 18 700 MHz Public Safety Radio Communication Plan including available 800 MHz frequencies and new 700 MHz frequencies

•Submit applications for proper FCC licensing of frequencies [NOTE: in accordance with section 3.2 of the Region 18 plan, System User Agencies may apply for the frequency licenses if they are the owner of the infrastructure provided they sign an Intergovernmental Agreement allowing all LWIN users access to all interoperability talkgroups as defined in Policy 003 Interoperable Channels and Talkgroups Policy.

•Maintenance

The SIEC will not be responsible for any maintenance cost associated with Infrastructure Improvement Requests.

•Access

The SIEC requires that all sites, including System User Agencies Infrastructure Improvement Request sites, will have all State and Regional Interoperability Talkgroups available. Also any Parish Interoperability Talkgroups that fall within the coverage area of the site will be available. The System User Agencies will retain authority to restrict all other access as they see fit. Any locally owned site which is part of the Louisiana Wireless Information Network will need to grant 24/7 physical access to the housing structure that contains the repeaters to radio technicians from DPS and GOHSEP to ensure that routine and emergency maintenance can be provided at any time.

See Enclosure inside of binder titled *Appendix A*, which is a sample of the form that could be used.

Network Patching Policy

The following is a new proposed policy that has been approved by the Policy and Planning Subcommittee:

I. Purpose

The purpose of this policy is to define a Louisiana Wireless Information Network (LWIN) Interoperability Patch and the operation of a patch.

Due to the existence of disparate systems in the State of Louisiana, the Statewide Interoperability Executive Committee (SIEC) has determined the need for a policy concerning patching these systems to the LWIN. Generally, the patching of LWIN is discouraged during normal operation due to the high risk of significantly degrading availability of system resources. The SIEC encourages agencies to discontinue patches as soon as reasonably possible.

The implementation of the patch hardware, interface, radio, labor, etc. is the responsibility of the requesting member. The State may invoice the member agency for any technical support supplied by State personnel.

Examples of patches that may need to be made are:

- Cross patch to legacy trunk system
- Cross patch to conventional system
- Talk group patch within the LWIN
- Patch to a separate frequency band
- Patch to cell phones/satellite phone

Network Patching Policy

II. Definition

An LWIN Patch is defined as an interface between the LWIN and any non-LWIN radio or audio source to provide audio communications between the disparate systems, or connecting two or more LWIN Talkgroups for interoperability.

Patching can interconnect the LWIN to a PBX or other telephone system, cell systems, the internet, satellite phones or another agency's communication system.

In most cases network patches can be accomplished through dispatch consoles or external devices such as an ACU1000, RIOS or Motobridge.

Two types of approved LWIN Patches are identified in this policy:

1. Temporarily Established Patch.

- A patch that is set up for a specific event, designed to be disconnected at the conclusion of that event.
  - Example 1: Patching a channel from an agency responding from out of state to an LWIN talkgroup to allow interoperable communications.
  - Example 2: A high speed pursuit crossing jurisdictional lines requiring talkgroups from different law enforcement agencies on the LWIN to be patched to allow transparent interoperable communication to the end users.

2. Permanently Established Patch.

- Patch set up without regard to an event, designed to remain in place with no time frame for disconnecting.
  - Example: Fire Departments use of patching to extend the range of Station Alerting Systems to units in the field by patching them to a specific talkgroup on the LWIN system.

Network Patching Policy

III. Procedures and Guidelines

The following guidelines shall be used for an LWIN patch deployment:

Temporary Patches

1. LWIN member agencies will make temporary patches as they identify a need with no prior approval required.

2. Agencies will notify the GOHSEP Communications Desk of any temporary patch enabled that remains in place for more than twelve hours.

3. If a patched talkgroup is proprietary to a specific jurisdiction, the authority of that jurisdiction must sign a Memo of Understanding (MOU) granting use of the proprietary talkgroup(s). In the case of quickly developing situations, verbal authorization may be substituted until an MOU can be created.

4. The patch must function in a technically and operationally consistent manner.

- The release time between messages should be less than 4 seconds.
- The audio quality should be a close representation of the original audio as heard on a typical subscriber radio.
- The audio shall be free of hum, clicks, or other extraneous noise.
- There shall be no clipping of the first syllables or loss of audio through the patch.

5. Maintenance of the temporary patch and facilities is the responsibility of the member agency.

6. The agency shall continuously monitor and respond to calls on the patch.

7. Although necessary, patches have the ability to degrade the performance of the LWIN system; as such, agencies are requested to disconnect temporary patches as soon as possible.

Network Patching Policy

III. Procedures and Guidelines (continued)

Permanent Patches

1. Permanent patches will be approved by the SIEC after need has been demonstrated. The LWIN Grade of Service will be considered in the approval of a permanent patch.

2. Permanent patches are to remain active at all times on the talkgroup specified within the Patch Agreement [Appendix A]. This requirement is to provide the public safety users with a consistent and functioning communications path between the radio systems.

3. When utilizing external patching devices or bridging equipment such as an ACU 1000, only one talkgroup will be programmed into a permanently patched LWIN interface radio to ensure the radio remains on the patched talkgroup.

4. The patch must function in a technically and operationally consistent manner.

- The release time between messages should be less than 4 seconds.
- The audio quality should be a close representation of the original audio as heard on a typical subscriber radio.
- The audio shall be free of hum, clicks, or other extraneous noise.
- There shall be no clipping of the first syllables or loss of audio through the patch.

5. LWIN Statewide talkgroups cannot be permanently patched.

6. Maintenance of a permanent Patch is the responsibility of the member agency.

Network Patching Policy

IV. Network Patch Communications Request

A. Agency to LWIN

When an agency needs to perform a permanent patch or a temporary patch lasting more than twelve hours to LWIN that will be accomplished with no outside assistance, the agency must provide the following information to ESF-2:

- Agency requiring network patch
- Reason for request or event type, i.e. hurricane, floods, fire etc.
- Details of the patch to include type of system, frequency or talkgroup
- All involved agencies requiring interoperability
- Expected duration of event
- Patch Location
- A point of contact including phone number

B. Agency to LWIN requiring assistance

Agencies may request use of the resources from the ESF-2 by providing the following information:

- Agency requiring network patch
- Reason for request or event type, i.e. hurricane, floods, fire etc.
- Details of the patch to include type of system, frequency or talk group
- All involved agencies requiring interoperability
- Equipment required
- Expected duration of event
- Location required/access information
- A point of contact including phone number

Network Patching Policy

C. Patch Deployment Procedure (tactical equipment required)

Upon receiving a WebEOC request for assistance for the use of a network patch where tactical equipment will be deployed, the ESF-2 will be notified and will be responsible for dispatching the tactical equipment to the incident scene.

ESF-2 should follow these deployment procedures:
•Respond to requester with estimated time to retrieve tactical equipment and estimated time to arrive on the incident scene
•Arrange for the tactical equipment to be deployed
•Contact the Incident Commander upon arrival of tactical equipment
•Arrange for the tactical equipment to be set up
•Arrange for the tactical equipment to be removed after the incident is concluded

V. Patch Activation

Some locations may not be equipped with agency radios before the event; therefore, all agencies will be required to bring a portable radio to connect to the tactical equipment command center for the length of the operation. Setup and installation of all radios will occur at location of patch. Agencies are also responsible for providing additional power supplies (i.e. spare batteries, chargers, speaker microphones, necessary cables, etc.) for portable radios, as battery life limits usability of the radio (see Network Patch Limitations below).

Network Patching Policy

V. Patch Activation (continued)

The Incident Commander or designee should follow these procedures in accordance with the National Incident Management System (NIMS):

•Avoid using an agency's primary dispatch channel
•Require participating agencies to check in at the command post and provide portable radios and frequency/talk group channels for use during the incident to the Communication Unit Leader (COML)
•Assign radio call sign/designator information to connected agencies
•Instruct ESF-2 on where to setup and operate the tactical equipment if assigned
•Inform ESF-2 which agencies are participating
•Provide ESF-2 with agency provided radios and an Incident Command Structure (ICS) form 205 with the frequency/talk group channels to be used during the incident
•Confer with ESF-2 concerning what command level or other specific talk groups that need to be programmed into the network patch

ESF-2 should follow these procedures:
•Arrange to obtain agency radios and connect to the patch with associated cables
•Select the channel or talk group assigned by the agency
•Assign the requested unit/agency to that channel or talk group as designated by the Incident Commander

Network Patching Policy

VI. Network Patch Deactivation

When interoperable communications are no longer required, agencies should follow these guidelines.
The Incident Commander or designee:

•Make an announcement on the command channel to all commanders to advise them the network patch is being deactivated
•Contact the ESF-2 or console operator to shut down the network patch
Participating agencies:
•Individual agencies are responsible for retrieving the portable radio and associated equipment provided during the operation.
ESF-2:
•Assure agencies retrieve all portable radios
•Take inventory of equipment and note any needing repair or replacement
•Return to pre-response storage location and make the tactical equipment ready for service

Network Patching Policy

VII. Problem ID and Resolution

If an issue or problem is identified during the network patch, ESF-2 shall determine who will take corrective action. If the issue or problem cannot be identified, ESF-2 shall contact the appropriate technical personnel or Parish Emergency Operation Center (EOC) to address the issue or problem.

Any problems discovered during the patch shall be resolved in the following manner:

•The local dispatch center having jurisdiction over the location of the incident reports any problems experienced to the system provider (the agency operating the radio system).
•The Incident Commander or designee will be responsible for ensuring effective resolution of problems that exist with interoperability resources, and notify the local dispatch center of the issues' resolution.

The following guidelines shall govern network patch problem identification and resolution between agencies:

•ESF-2 reports any problems experienced to the the Incident Commander or designee. Agencies using network patches may also report any problems experienced

•The Incident Commander or designee will be responsible for ensuring effective resolution of problems that exist with interoperability resources, and notify the local dispatch center of the issues' resolution

Network Patching Policy

VIII. Network Patch Test Procedures

To ensure that equipment components of the network patch operate properly, each agency will test their resources according to their agency's individual policies and procedures. Below are recommended procedures:

- Representatives from each agency should meet on a regular basis to test communications
- Testing should include deployment, setup, operation, and deactivation of the network patch
- Agency representatives should arrive at the test location to test their ability to communicate with other agencies utilizing the patch.

See Enclosure inside of binder titled *LWIN Perminant Patch Agreement*, which is a sample of the form that could be used.

QUESTIONS ????

THANK YOU……..